

REMARKS

Claims 1-10 and 12-26 were examined by the Office, and in the final Office Action of April 15, 2008 all claims are rejected. With this response claims 1, 17, 21-22 and 24 are amended. Applicant respectfully submits that all amendments are fully supported by the specification as originally filed. Applicant respectfully requests reconsideration and withdrawal of the rejections in view of the following discussion.

This response is submitted along with a Request for Continued Examination (RCE).

Claim Rejections Under § 103

In section 4, on page 2 of the Office Action, claims 1-2, 5-6, 8-9, 13-14, 16-22 and 24-25 are rejected under 35 U.S.C. § 103(a) as unpatentable over Leinonen et al. (U.S. Patent No. 6,826,391). Applicant respectfully submits that claim 1 is not disclosed or suggested by Leinonen, because Leinonen fails to disclose or suggest all of the limitations recited in claim 1. Claim 1 is amended to recite that the first antenna is for reception and transmission of signals in at least the first frequency band, and the second antenna is only for reception of signals in at least the first frequency band and the second frequency band. Leinonen at least fails to disclose the limitations recited in claim 1, in which one antenna is for both reception and transmission while another antenna is for reception only. Furthermore, Leinonen also at least fails to disclose or suggest a control component configured to determine whether a received signal comprises signals in a second frequency band, and that the second antenna is configured for reception of signals in the second frequency band when the control component determines that the received signal comprises signals in the second frequency band, as recited in claim 1.

In contrast to claim 1, none of the antenna systems shown in Figures 1a-1d and 4-5 of Leinonen show an antenna that is for reception and transmission of signals in at least one frequency band, and another antenna that is only for reception of signals in at least two frequency bands. For example, the antenna system (1a) shown in Figure 1a discloses two antennas (10, 12). However, the reception antenna (12) can only be configured to be used in a first reception frequency, and therefore the reception antenna (12) is not for reception of signals in at least a first frequency band and a second frequency band as the second antenna is in claim 1. Therefore, the antenna system shown in Figure 1a does not disclose or suggest independent claim 1, as amended. Furthermore, in the antenna system (1b) shown in Figure 1b none of the

antennas (10, 12, 13) are only for reception of signals. Instead, antenna (10) is for transmission, and antennas (12, 13) are for transmission and reception. In addition, the antenna system (1d) shown in Figure 1d has two antennas (10, 15) for transmission and two antennas (12, 13) for reception. However, none of the antennas are for reception and transmission of signals as required by claim 1. Similarly, the antenna systems (1e, 1f) shown in Figures 4 and 5 also fail to disclose or suggest an antenna for reception and transmission of signals, and another antenna only for reception of signals, as recited in amended claim 1. Therefore, for at least this reason claim 1 is not disclosed or suggested by Leinonen.

On page 3 of the Office Action,¹ the Office acknowledges that Leinonen fails to explicitly teach a control component configured to determine whether a received signal comprises signals in a second frequency band, and a second antenna configured for reception of signals in the second frequency band when the control component determines that the received signal comprises signals in the second frequency band. However, the Office asserts that since Leinonen teaches a processor (94) for providing a control signal to a switch (34), and the switch (34) under the control signal conveys received signals by the antenna (13) in the second frequency band to the receiver (54) it would be obvious to modify Leinonen to include a control component configured to determine whether a received signal comprises a signal in the second frequency band. However, applicant respectfully submits that determining whether a received signal comprises a signal in a particular frequency band, i.e. second frequency band as in claim 1, is entirely distinct from providing control signals to switches so that the switches *convey* received signals from antennas to appropriate receiving components. Therefore, the differences between Leinonen and claim 1 are not an obvious modification of Leinonen.

The Office asserts that processor (94) reads on the control component of claim 1. Leinonen states that the combination of the received signals by the antennas (10) and (12) is carried out in the digital signal processor (94). See Leinonen paragraph [0061]. In contrast to the control component recited in claim 1, Leinonen states that the processor (94) combines the signals, and does not make any determination as to the type of signal received. Furthermore, while Leinonen states that the processor (94) may provide control signals (109), (110) and (111), none of these control signals are being provided as a result of the processor (94) determining which signal is being received. For example, when the system is operating in the reception mode, the antenna (10) may be tuned to the reception frequency by the tuner (20) under the

control signal (109) so that the antenna (10) also receives GSM signals. See Leinonen Figure 4. However, merely providing a signal which indicates which mode the system is operating in is entirely distinct from determining whether a received signal comprises signals in a particular frequency band, as recited in claim 1. Instead, Leinonen only discloses that when in reception mode the antenna (10) may be tuned to receive GSM signals instead of transmitting GSM signals. However, this tuning is entirely independent of a determination as to what signals are being received by the other antenna (12). In Leinonen, there is no discussion or suggestion that the mode that the system operates in is dependent upon a determination as to what frequencies the received signal comprises.

Furthermore, the control signals (110) and (111) are for configuring switches (30) and (34) to route signals received by the antennas to the appropriate receivers. In contrast to claim 1, there is no determination made by the processor (94) as to what type of signals are being received, instead the signals (110, 111) are based upon what mode the system is in. In addition, the control signal (115) is also merely used to control switch (34) to convey the signals received by the antennas to the receiver. See Leinonen paragraph [0062]. Therefore, contrary to the assertions of the Office, Leinonen does not disclose or suggest a control component configured to determine whether a received signal comprises signals in a second frequency band, and that the second antenna is configured for reception of signals in the second frequency band when the control component determines that the received signal comprises signals in the second frequency band, as recited in claim 1. It is not an obvious modification of Leinonen to provide a control component configured to determine whether a received signal comprises a particular frequency band, because Leinonen provides no suggestion that the processor (94) or any other component could be configured for such use. In fact, the apparent motivation offered by the Office on page 3 of the Office Action merely recites the function of the systems discussed in Leinonen, and does not provide why one of skill in the art would be motivated to make the modification to Leinonen that the Office acknowledges must be made in order to disclose the limitations of claim 1.

For at least the reasons discussed above, applicant respectfully submits that claim 1 is not disclosed or suggested by Leinonen, and respectfully requests withdrawal of the rejection to claim 1.

Independent claims 17, 21-22 and 24 contain limitations similar to claim 1, and are rejected for similar reasons as claim 1. Therefore, for at least the reasons discussed above in relation to claim 1, claims 17, 21-22 and 24 are not disclosed or suggested by Leinonen.

The dependent claims rejected above, and depending from the above mentioned independent claims are not disclosed or suggested by Leinonen at least in view of their dependencies.

In section 5, on page 9 of the Office Action, claims 7 and 10 are rejected under 35 U.S.C. § 103(a) as unpatentable over Leinonen in view of Braun et al. (U.S. Patent No. 6,980,782). Claims 7 and 10 all ultimately depend from an independent claim, and are patentable over the cited references at least in view of their dependencies.

In section 6, on page 9 of the Office Action, claims 3-4, 15 and 23 are rejected under 35 U.S.C. § 103(a) as unpatentable over Leinonen in view of Eggleston (U.S. Patent No. 6,414,640). Claims 3, 4, 15 and 23 all ultimately depend from an independent claim, and are patentable over the cited references at least in view of their dependencies.

In section 7, on page 10 of the Office Action, claims 12 and 26 are rejected under 35 U.S.C. § 103(a) as unpatentable over Leinonen in view of Balchunas et al. (U.S. Appl. Publ. No. 2006/0097171). Claims 12 and 26 all ultimately depend from an independent claim, and are patentable over the cited references at least in view of their dependencies.

Conclusion

Applicant respectfully submits that the present application is in condition or allowance, and such action is earnestly solicited. The undersigned hereby authorizes the Commissioner to change any fee deficiency required to submit this response to Deposit Account No. 23-0442.

Respectfully submitted,

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